

ABSTRACT OF THE DISCLOSURE

1 An apparatus and method for indicating and allowing hot swapping of a circuit
2 board. During both insertion and extraction of a circuit board from a system, two inputs
3 signals are generated from staggered pins located on the circuit board's connector. The
4 inputs are processed through a NAND function implemented with transistors and output
5 to two Schmitt trigger inverters connected in series. The output of the series connection
6 of Schmitt trigger inverters goes high when both input signals are high and goes low
7 when one of the inputs signals goes low. In addition, through the use of a resistor,
8 capacitor combination connected to the input of the first Schmitt trigger inverter, the
9 output signal remains high for a period of time after one of the input signals goes low.
10 This additional period of time prevents any damage or disruption of signaling caused by
11 transient current and voltage fluctuations as a circuit board is inserted or extracted. The
12 output signal can be used in both single-ended and differential SCSI applications.